

**AIR
RESOURCES
BOARD**

Air Resources Board

The mission of the Air Resources Board (ARB) is to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the State.

Developing and Implementing New Strategies to Effectively Reduce Air Pollution

ARB is responsible for reducing emissions from motor vehicles, off-road equipment, fuels, consumer products, and air toxics. ARB also recommends pollution control measures for the industrial and commercial sources under the jurisdiction of California's 35 local air districts.

Accomplishments

1. **Phase 3 California Reformulated Gasoline:** In July, ARB approved amendments to the California Phase 3 Reformulated Gasoline regulations, postponing by one year the phase-out of methyl tertiary butyl ether (MTBE) in gasoline in accordance with the Governor's March 14, 2002, executive order. In December, ARB approved additional technical amendments that clarify the regulation and assist in the transition away from MTBE.
2. **Rice Straw Expo:** In July, ARB hosted the Rice Straw Products Expo 2002 in Sacramento. The purpose of the expo was to promote alternative uses of rice straw. About 200 attendees represented local government, end users of rice straw, construction companies, and the general public. The expo also provided a marketing opportunity for rice straw products and related services. Fifteen companies had booths to show products, including compost, cattle feed, worm castings, erosion control materials, door cores, and bale construction materials.
3. **Smog Check II in the Bay Area:** In September, Governor Davis signed AB 2637 (Cardoza, Chapter 1001, Statutes of 2002), requiring the State Bureau of Automotive Repair (BAR) to implement the Enhanced Motor Vehicle Inspection and Maintenance Program (Smog Check II) in all urbanized areas in the nine-county San Francisco Bay Area. ARB staff supported the legislative hearings by providing the analysis of the air quality benefits of implementing Smog Check II in the Bay Area. Smog Check II is projected to reduce reactive organic gases (ROG) emissions by 7 tons per day and oxides of nitrogen (NOx) emissions by 11 tons per day in the Bay Area. The legislation also extends the new car exemption from four years to six years in vehicle age beginning in January 2004, unless ARB finds that such an exemption would interfere with compliance with the federal Clean Air Act. BAR anticipates initial implementation of the program by July 2003.
4. **San Diego Ozone Maintenance Plan:** In December, ARB approved San Diego's plan demonstrating how the region will maintain compliance with the federal one-hour ozone standard over the next decade. ARB submitted the plan to the U.S. Environmental Protection Agency (U.S. EPA) with a request for expedited federal action to support transportation

funding. ARB's requirements for an ever-cleaner vehicle fleet ensure that emissions in San Diego County will continue to decline in the next 10 years, despite anticipated growth. These further emission reductions are important to protect the region's attainment status from seasonal weather variations that promote ozone formation. The standards also promote San Diego's continued progress towards more health-protective air quality standards.

5. **Enhanced Vapor Recovery Regulation Amendments:** In December, ARB approved revisions to its enhanced vapor recovery (EVR) regulations based on a review of the available technology. In the review, ARB staff found that all but one of the previous EVR standards were technologically feasible or likely to be technologically feasible. The amendments recognize the current status of technology development and availability, and they focus the strictest provisions on the areas with recognized air quality problems.
6. **Revisions to Urban Transit Bus Fleet Regulations and a New Interim Certification Procedure for Hybrid Electric Vehicles:** In October, ARB adopted amendments to the urban transit bus fleet rule and an interim certification procedure for hybrid electric vehicles. The amendments respond to the unavailability of diesel particulate filter technology for pre-1994 urban bus engines by providing a new approach for achieving similar emission reductions. In addition, the amendments allow urban transit bus agencies to make a one-time change from the diesel path to the alternative fuel path. ARB also adopted a new interim certification procedure for hybrid electric vehicles used in the urban bus and heavy-duty vehicle classes. The interim certification procedure was based on the Society of Automotive Engineers testing protocol customized by ARB staff, with input from U.S. EPA and industry stakeholders for use in California.
7. **Stricter Emission Standards for Heavy-Duty Gasoline Trucks:** In December, ARB approved amendments that align State exhaust emission standards for heavy-duty gasoline trucks with stricter federal standards. The amendments harmonize the California and federal programs and take effect starting with the 2008 model year.

Continuing Priorities

1. **Urban Vegetation Information Program:** While no action is anticipated in the next six months, ARB still plans to initiate a voluntary urban vegetation air quality information program to provide information to the public and distributors, encouraging the use of vegetation that is most beneficial to air quality. The program will be implemented in urban areas and provide information on hydrocarbon emissions and bioallergens associated with certain types of vegetation.
2. **M-17 In-Use Testing Program for Heavy-Duty Diesel Trucks:** In January, a status update will be presented to ARB on the M-17 project-development of an NOx screening test for in-use heavy duty vehicles. A test and repair study managed by ARB tested 71 trucks and completed repairs and re-tests on 22 trucks. ARB staff completed the data evaluation in December. The M-17 project seeks to identify the magnitude of excess NOx emissions from

heavy-duty diesel trucks, the cost and effectiveness of NO_x related repairs, and the appropriate tailpipe emission levels necessary to identify poorly maintained or tampered vehicles.

3. **South Coast State Implementation Plan (SIP):** ARB continues to work with the South Coast Air Quality Management District, the Southern California Association of Governments, and other stakeholders on a comprehensive revision to the South Coast SIP. The 2003 revision will use the latest emissions data and control strategies to update plans for attaining the federal air quality standards for ozone and particulate matter 10 microns and less in diameter (PM-10). In December, ARB provided the district with proposed State and federal measures needed for the district's draft SIP. An ARB commitment to achieve additional emissions reductions will also be needed to demonstrate attainment of the federal one-hour ozone standard. The SIP is currently scheduled for public review and comment in early 2003, with adoption anticipated in mid-2003.

Priorities

1. **AB 1493 Greenhouse Gas Regulation:** AB 1493 (Pavley, Chapter 200, Statutes of 2002) requires ARB to promulgate regulations by 2005 for controlling greenhouse gas emissions from automobiles beginning with model year 2009. To support this effort, during the first half of 2003 ARB plans to develop the greenhouse gas inventory, conduct an automobile technology symposium, and obtain an economic model for assessing consumer choice.
2. **Area Designations for the New Federal Eight-Hour Ozone Standard:** In spring 2003, ARB will submit recommendations for area designations for the new federal eight-hour ozone standard to U.S. EPA. Under a consent decree U.S. EPA recently entered into with several environmental groups, U.S. EPA must finalize eight-hour ozone nonattainment designations by April 2004. The environmental groups sued U.S. EPA because U.S. EPA failed to designate the eight-hour ozone nonattainment areas as required by the federal Clean Air Act. Most existing one-hour nonattainment areas will also be nonattainment for the eight-hour standard, in addition to some rural transport impacted areas that will be nonattainment for the first time.
3. **San Joaquin Valley PM-10 State Implementation Plan:** Following local adoption in the spring of 2003, ARB is expecting to consider the San Joaquin Valley PM-10 State Implementation Plan (SJV Plan) and submit it to U.S. EPA shortly thereafter. ARB has worked with the local air and transportation agencies, as well as other stakeholders in the San Joaquin Valley, on developing the SJV Plan. ARB has already provided the San Joaquin Valley Unified Air Pollution Control District with a significantly improved PM-10 emissions inventory and air quality modeling for the attainment demonstration. ARB staff will also provide the district with proposed ARB control measures needed for attainment.
4. **Transport Mitigation Regulation:** In May 2003, ARB will consider amendments to the transport mitigation regulation. Elements under consideration include changes to all feasible

measures and new source review requirements to ensure that upwind air districts have programs at least as effective as those adopted by their downwind neighbors. A public workshop will be held by February 2003, and ARB staff is meeting with districts and interested stakeholders.

5. **Solid Waste Collection Vehicles:** In May 2003, ARB will consider a proposed regulation to reduce particulate matter emissions from solid waste collection vehicles servicing residential and commercial sites. The proposed regulation requires that the best available control technology be applied to reduce emissions to the lowest possible levels. ARB staff coordinates industry work groups consisting of local municipalities and solid waste collection providers, and has already conducted several workshops. ARB staff will continue to work with stakeholders to discuss issues such as the recuperation of the costs of implementation for providers whose rates are regulated by long-term contracts.
6. **Measure to Reduce Emissions from Small Off-road Engines:** In June, ARB will consider measures to further reduce the emissions from small off-road engines. Under consideration are amendments to align the hand-held engine standards with the federal levels beginning with the 2005 model year. Proposing catalyst-based exhaust emission standards for the model year 2006 non-handheld engines is also under consideration. Additionally, staff expects to propose adoption of a new fuel tank permeation standard and a new evaporative emission requirement for all equipment that uses small off-road engines.
7. **Update of the Santa Barbara Maintenance Plan:** Santa Barbara County attained the federal one-hour ozone standard by the November 15, 1999, statutory deadline, a significant accomplishment for public health in the region. Santa Barbara Air Pollution Control District subsequently prepared its 2001 clean air plan, providing a stable and lasting foundation for continued attainment of the standard through the ten-year planning horizon. In December, the Santa Barbara district board adopted an update to the clean air plan to reflect revisions based on ARB's new motor vehicle emission factor model, EMFAC2002. The district submitted its clean air plan to ARB. ARB plans to submit the clean air plan to U.S. EPA in February 2003.

Incorporating Environmental Justice Principles and Children's Health Issues into ARB Actions

Over the last two decades, ARB policies and programs have helped to reduce the health risk from air pollution across California. However, ARB recognizes the need to address neighborhood-scale air quality issues. ARB will work to integrate EJ and children's health issues into all aspects of its programs, policies, and actions, and to improve its outreach efforts.

Accomplishments

1. **School Bus Idling Airborne Toxic Control Measure (ATCM):** In December, ARB approved an ATCM that cuts diesel particulate matter and other toxics primarily by restricting school bus and other heavy-duty vehicle idling at and near schools. Children riding

in and playing near buses and heavy-duty vehicles are regularly exposed to pollutants from these sources, and are typically more vulnerable than adults to the adverse health effects caused by the pollutants. This measure implements elements of ARB's Diesel Particulate Matter Risk Reduction Plan and addresses several priority pollutants for children identified under the Children's Environmental Health Protection Act. In developing the measure, ARB staff worked closely with federal, State, and local government agencies; school districts; industry groups; and other stakeholders.

2. **ARB/California Air Pollution Control Officers Association (CAPCOA) Complaint Resolution Protocol:** Through a collaborative effort with the environmental justice stakeholders group, ARB staff developed and published the ARB/CAPCOA complaint resolution protocol. The environmental justice stakeholders group is comprised of representatives from community and environmental groups, industry, the CAPCOA, ARB, and other regulatory agencies. The protocol represents the best practices for the ARB and local air districts to use for ensuring timely and effective resolution of air pollution complaints, including conducting timely investigations, taking appropriate enforcement action when warranted, and informing the complainants of the results of the investigations. The complaint resolution protocol is available on the ARB Community Health Web site in both English and Spanish.
3. **Public Participation Guidebook:** With input from the environmental justice stakeholders group, ARB staff developed a public participation guidebook that will be published in the first quarter of 2003. The guidebook is a user-friendly manual for the general public, and it includes basic information on air pollution, responsibilities of government agencies, and how to participate in the public processes related to air quality issues. The public participation guidebook will be available on the ARB Community Health Web site in both English and Spanish.

Continuing Priorities

1. **Report to the Legislature on Air Quality in Portable Classrooms:** The California Portable Classrooms Study is a joint study by ARB and the Department of Health Services (DHS) to investigate the environmental health conditions in portable classrooms. Requested by the Governor and mandated by the Legislature, this is the most comprehensive study to date of indoor environmental quality in K–12 schools. In 2002, ARB and DHS completed a mail survey of 1,000 randomly selected schools statewide and took field measurements in 201 classrooms. The draft report will be available for public review in spring 2003 and will be discussed at multiple public meetings. The final report and staff recommendations for improving environmental health conditions in portable classrooms will be presented to ARB in late spring 2003 and provided to the Legislature.
2. **Report on the Adequacy of the Monitoring Network:** As required by the Children's Environmental Health Protection Act, ARB is completing a report on the adequacy of California's air quality monitoring network in reflecting the levels of air pollutants that

infants and children are breathing. A special expanded monitoring study in six communities across California provided critical data that support the network evaluation. Special monitoring will continue for several months in three of the six communities. The report and findings will be published in spring 2003.

Priorities

1. Land-Use Informational Document for Local Air Districts and Local Government

Agencies: ARB staff plans to develop and publish in mid-2003 a land-use informational document for local air districts and local government agencies intended to increase awareness of potential public health risk associated with land-use decisions. It will also provide information on frequently asked land-use-related air quality questions. ARB staff plans to supplement the land-use document over time by developing fact sheets that address more specific sources of air pollution in neighborhoods such as dry cleaners, gas stations, or auto body shops. The land-use informational document represents one of the specific commitments in ARB's environmental justice policies and actions.

Promoting the Development, Commercialization, and Use of Zero- and Near-Zero Emission Technologies

Development of low-emission technologies has been essential to improving California's air quality while accommodating growth. However, the state has not achieved all health-based air quality standards. In order to achieve and maintain these standards and reduce health risk from air toxics, California needs to pursue development, commercialization, and use of zero- and near-zero emission technologies.

Accomplishments

1. **Zero-Emission Vehicle (ZEV) Incentive Funds:** ARB administers the statewide ZEV Incentive Program (ZIP). Over the past six months, ZIP has provided approximately \$2.1 million in grant incentives to public and private consumers towards the lease or purchase of 241 new zero-emission vehicles. Since its inception in October 2000, ZIP has provided approximately \$5.9 million towards the lease or purchase of 775 new zero-emission vehicles.

Continuing Priorities

1. **California Fuel Cell Partnership:** ARB has been an important and active member in the California Fuel Cell Partnership (CFCP), participating in the CFCP Fuel Cell Road Rally along the California coast in September and hosting the International Fuel Cell Partnerships Summit in October. ARB's involvement promotes the development, commercialization, and use of fuel cell technologies.

Priorities

1. **Zero-Emission Vehicle Program Amendments:** In April, ARB will consider proposed amendments to the Zero-Emission Vehicle (ZEV) Program regulations that address issues

raised by industry litigation and take into account current conditions and trends in zero- and near-zero emissions technology development. The proposed amendments include:

- Restarting the ZEV requirement in 2005.
- Defining three stages of fuel cell development, and awarding manufacturers greater amounts of credit for vehicles produced during those periods.
- Allowing the use of advanced technology partial zero-emission vehicles to meet up to half of a manufacturer's ZEV obligation.
- The possible use of hydrogen infrastructure as ZEV credit.

These modifications would primarily affect the ZEV requirements between the 2005 and 2011 model years.

Achieving Necessary Emission Reductions Through Compliance Assistance and Aggressive, Firm, and Fair Enforcement

ARB takes great pride in implementing regulations and other programs to improve air quality by limiting or eliminating emissions from statewide sources of air pollution. ARB has established many innovative regulatory programs, but these programs will not deliver the necessary emission reductions unless they are fully enforced.

Accomplishments

1. **Administrative Penalty Program:** In December, ARB approved changes to its administrative hearing procedure regulations to comply with SB 527 (Sher, Chapter 769, Statutes of 2001). SB 527 authorizes ARB to pursue penalties for less significant violations through an administrative hearing process as an alternative to pursuing civil penalties through the court system. The law limits the amount that ARB may assess as an administrative penalty to \$10,000 per violation per day with a maximum assessment no greater than \$100,000. However, in no event may the penalty assessed exceed the maximum allowed by statute.
2. **Settlement Agreements for Air Quality Violations:** Over the past six months, ARB took successful action against violators of ARB's air quality regulations, collecting settlements totaling more than \$1 million. Enforcement orders were issued to a variety of companies, including those that manufacture engines, furniture polish, recreational vehicles, and gasoline cans. The largest single settlement of the past six months totaled \$350,000 against an automotive coatings manufacturer. Settlements go into the Air Pollution Control Fund and are used to mitigate various sources of pollution throughout the state.

Improving Scientific Understanding of the Relationship Between Air Pollution and Health Effects

The ARB health research program is continuing to advance its understanding of the link between air pollution and public health. ARB is placing an increased emphasis on community health and environmental justice. This is stimulating research within ARB on the health effects of individual and multiple air toxics as well as the impacts of air pollution on vulnerable populations. The indoor air quality and personal exposure program is helping ARB to better understand the sources and health effects of airborne pollutants in schools, homes, and workplaces.

Accomplishments

1. **Fresno Asthmatic Children's Environment Study (FACES):** In December, ARB approved continued funding for FACES. The main goal of this study is to examine the health effects of air pollution, especially particulate matter, on children with asthma. FACES is a five-year study that monitors 300 asthmatic children through lung function tests, questionnaires, and skin testing for allergies. A unique and important aspect of this study is the extensive exposure assessment effort, which includes monitoring in some of the participant's homes. FACES will provide critical insights into the role of specific air pollutants and other environmental factors in the acute responses and natural history of childhood asthma. Findings from this study may assist ARB and other regulatory agencies to develop appropriate air pollution standards and regulations, and may help health care providers identify children who are at the greatest risk for adverse effects of air pollution.

Priorities

1. **Tobacco Smoke as a Toxic Air Contaminant:** ARB will continue its work with the Office of Environmental Health Hazard Assessment (OEHHA) to recommend a formal finding identifying environmental tobacco smoke (ETS) as a toxic air contaminant later this year. ETS exposure is primarily from first- and secondhand cigarette smoke and has been associated with a variety of adverse health effects, including heart disease, sudden infant death syndrome, lung cancer, and other respiratory illnesses. ARB and OEHHA are working together as required by the toxic air contaminant identification program to formally identify ETS as a toxic air contaminant.

Improving Technical Tools to Assess Air Pollution and Evaluating Air Quality Improvement Strategies

Key to the air quality progress California has made are the findings revealed in robust data and the analytical tools underpinning ARB plans, initiatives, and regulatory strategies. ARB will continue to use the best science to answer the basic questions: What pollutants are people exposed to, and in what quantities? What are the pollution sources and how much do they emit? How does pollution move, react, and accumulate in the atmosphere?

Accomplishments

1. **Public Release of EMFAC2002:** In October, ARB released to the public the latest version of its mobile source emission factor model, EMFAC2002. In December, ARB transmitted the model and documentation to U.S. EPA for approval for use in SIPs and SIP-related mobile source analyses (conformity findings). U.S. EPA approval in early 2003 is a crucial milestone for the SIP updates occurring in California, since the continued flow of transportation funding in certain regions depends on conformity findings based on EMFAC2002.
2. **New Innovative Clean Air Technology Grants:** In July, ARB approved three new grants:
 - General Electric (GE) Energy & Environmental Research Corporation received a \$200,000 grant for GE to demonstrate a new reforming technology to provide hydrogen to fuel cells.
 - S.T. Johnson Burner Company of Oakland received \$133,000 to install a burner for a broiler that is expected to emit fewer than 5 parts per million (ppm) of NO_x, as compared to the 9 ppm that is required as the best available control technology.
 - Southwest Texas State University received \$99,324 for a project to demonstrate the durability and other performance characteristics of industrial coatings using paint resins from soybeans.

Continuing Priorities

1. **Increased Ability to Monitor Air Quality in the California-Mexico Border Region:** ARB staff continues discussions with Mexico's environmental ministry, Secretaria de Medio Ambiente y Recursos Naturales, to reach a formal agreement to ensure the continued operation of an air quality monitoring network in the cities of Tijuana, Mexicali, and Tecate. An agreement would outline the monitoring goals, the responsibilities of the two agencies, and facilitate the eventual transfer of air quality monitoring capabilities and responsibilities to Mexico. The continued availability of air quality data will allow U.S. and Mexican authorities to better understand the causes and severity of air pollution in the border region, assess the extent of cross-border transport, develop effective pollution reduction programs, and measure progress towards attainment of air quality standards. The formal agreement is expected by June 2003.